

Hiroshi INOUE*: A New and additional descriptions of
Hepaticae from Titibu District

井 上 浩*: 稲父地方苔類の1新種及び2種の記載追加

***Lophocolea itoana* H. Inoue sp. nov. (fig. 1)**

Dioica (§ *haud visa*). *Planta minor*, pallide olivacea, caespitosa ad rupem, in muscis consociata. *Caulis repens*, 0.8–1.2 cm longus, 0.15 mm in diametro, cum foliis 1.0–1.5 mm latus, subsimplex vel parum ramosus, radicellis fasciculatis e basi amphigastrii ortis, hyalinis. *Folia caulinata* remotiuscula vel parum contigua, oblique patula, basi antice caulem breviter decurrentia, oblongo-ovata, 0.4–0.6 mm lata, 0.6–0.8 mm longa, subapice 0.3–0.8 mm lata, apice ad 1/3 biloba, lobis acutis. *Cellulae* 27–35 μ , parietibus tenuibus, trigonis minutis, acutis, cuticulis levibus. *Amphigastria* caulinata magna, caule 1.5–2.0 plo latiora, utrimque decurrentia, cum folio lateraliter angustissime coalita, 0.2–0.5 mm lata, 0.2–0.4 mm longa, subquadrata, apice ad 1/2 bifida, lobis triangularis, validis, porrectis acuminatis. *Gynoecia* caule lateralia vel ramis terminalia: *folia floralia intima magna*, 1.5–1.7 mm longa, 0.5–0.6 mm lata, oblonga, apice ad 1/3 bifida circumcirca 2–5 dentata; *amphigastria floralia intima magna*, 1.2 mm longa, 0.7–0.8 mm lata, ad 2/3 biloba, lobis acutis, circumcirca 3–8 spinoso-dentata. *Perianthia* oblongo-triquetra, 1.0–1.6 mm longa, 0.4–0.6 mm lata, ore trilobato, lobis trigono-ovatis, ipsis bilobis, parum dentiulus. *Gemmae* ad apicem foliorum caulinorum et floraliorum vel perianthiorum vel raro amphigastriorum floraliorum, irregulariter gregareae, uni- vel multicellulares, cellulis 13–23 μ longis.

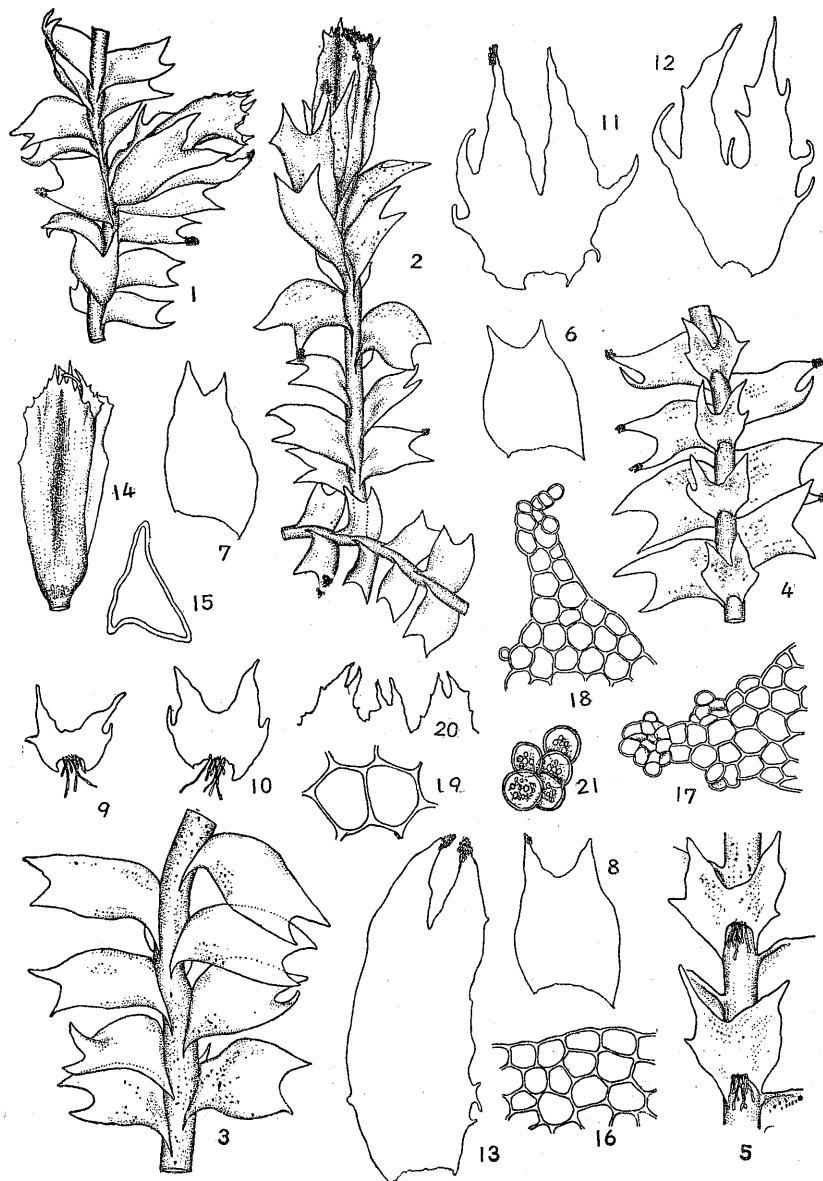
Nom. Jap. *Itō-tosakagoke* (nov.)

Hab. Occurring with other mosses, on humus covering the calcareous rock under coniferous forest, ca. 1900 m, near the Jumonji Pass, Chichibu Mts. Saitama Pref., Middle Japan. (H. Inoue, July 1955, no. 5220—Holotype in Herb. Tokyo Univ. Education; Isotype in Herb. Hattori Bot. Labor.)

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Fig. 1. *Lophocolea itoana* H. Inoue: 1-2. A part of plant with a perianth, postical view ($\times 16$). 3. Ditto, postical view ($\times 25$). 4. Ditto, ventral view ($\times 25$). 5. Ditto ($\times 40$). 6-8. Leaves ($\times 25$). 9-10. Underleaves ($\times 25$). 11-12. Bracteoles ($\times 25$). 13. Bract ($\times 25$). 14. Perianth ($\times 25$). 15. Cross section of perianth ($\times 25$). 16. Cells from margin of leaf ($\times 160$). 17-18. Apex of leaf-lobe ($\times 160$). 19. Cells from middle of leaf ($\times 300$). 20. Apex of perianth ($\times 16$). 21. Gemmae ($\times 300$).

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The present material has no male inflorescens, but, in view of a number of well developed perianths, it is treated as a dioecious plant by the author.

The characteristic points of this new species are in gemmae and underleaves, the former are abundant on the apices of leaves, bracts, perianths and sometimes on bracteoles, and the latter are very broad. *L. minor* is related to the present species, but differs by becoming abnormal in gemmiparous leaves. In general aspect, this species is similar to *L. bidentata*, but differs from it by the size of plant, the form of leaf and underleaf and the characters of gemma.

This species was named in honor of Dr. H. Ito, a professor of our University, who gave me the opportunity to find this species.

Acrobolbus titibuensis (Hatt.) Hatt. in Journ. Jap. Bot. **26**: 96 et 243. 1951.
(fig. 2, 1-4)

Obs. Male inflorescens middle of stem, 3-5 pairs, bract bilobed without cilia and slightly larger than leaf, antheridium one in a bract.

Exam. Ootigawa, Saitama Pref. ca. 800m, on moist rock occurring with other mosses (N. Inoue, Apr. 1955, no. 4115)

The present species belongs to subgenus *Lophocoleopsis* Schiff. The members of this subgenus are *A. ciliatus* of Himalaya, *A. lophocoleopsis* of New Zealand, *A. rhizophyllus* of N. America. In Pflanzenfamilien 1: 3 (1893), Schiffner described the sexual organs of this subgenus as follows: "Arch. am Grunde des Saches. Entwickerte Fructifikation undekannt. Antheridien 2-mehrerer im Winkel jedes Perigonalbl." Hitherto, however, the sexual organ of this subgenus has not been illustrated or described in detail, and Schiffner's description is not clear in its descriptiotype. The author found male plants in the above cited material, and described them with figures.

In Schiffner's description the number of antheridium of this subgenus in "2-mehrerer," but in *A. titibuensis* only one was found. Judging from the fact that, in spite of a number of male plant, the female plant is not found in the same material, this species seem to be dioecious plant.

Scapania ornithopodioides (With.) Pears.—Amakawa et Hattori in Journ. Hattori Bot. Lab. **12**: 110, fig. 14. 1954 (fig. 2, 5-8)

Obs. Perianth terminal with one or two shoots just below it, oblong, 3.0mm long and 1.5 mm wide, dorsiventrally compressed, truncate, upper part bent toward ventral side, mouth slightly lobed, densely ciliate, cilia 2-11 cells (mostly 4-7 cells) long, base 1-2 cells wide, rarely branching, bracts similar to following leaves.

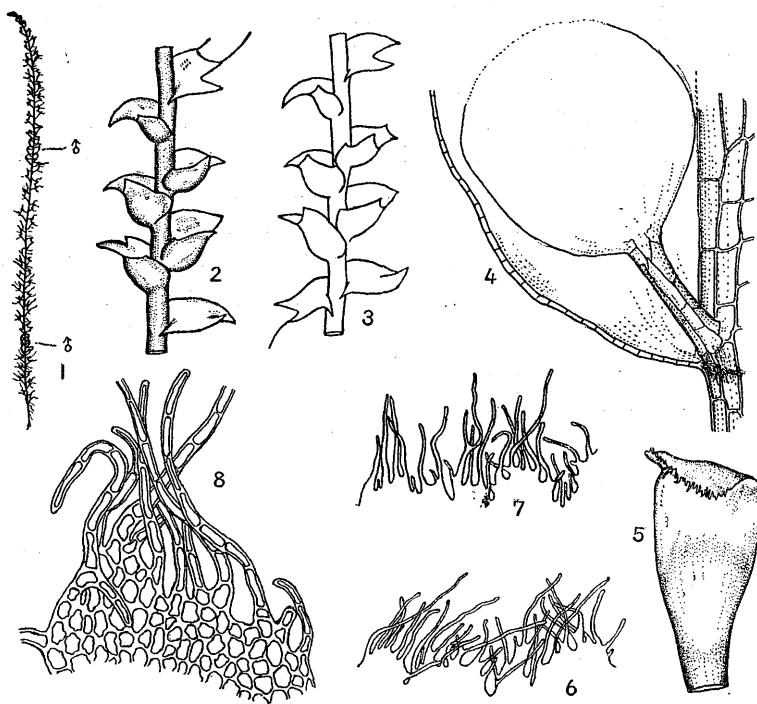


Fig. 2. *Acrobolbus titibuensis* (Hatt.) Hatt. (1-4): 1. Plant ($\times 3$). 2-3. Male inflorescens ($\times 10$). 4. Antheridium ($\times 300$). *Scapania ornithopodioides* (With.) Pears. (5-8): 5. Perianth ($\times 10$). 6-7. A part of the mouth of perianth ($\times 40$). 8. Ditto ($\times 160$).

Exam. Mt. Jumonji, Saitama Pref. ca. 2000m, on moist rock (H. Inoue July 1955, no. 5172-5174)

Amakawa and Hattori established subgenus *Protosapania* designating *Scapania secunda* St. as the type. The present species is the only representative of Japan belonging to this subgenus, but the perianths were not yet known. In my materials the perianths are found, but they are few in number and sporophytes have been already lost.

I take this opportunity to express my thanks to Dr. S. Hattori, the director of the Hattori Bot. Labor. and Prof. H. Ito for their constant advices and guidances.

イトウツサカゴケ (新称) *Lophocolea itoana* H. Inoue は秩父大滝村より信州梓山に向う途中、十文字峠下の石灰岩地で発見したものである。植物体が小形なのに較べて腹

葉がいちじるしく大形であり、無性芽は葉裂片や、まれに花被の先端にも多くみられる。これらの点で他の邦産種からは明らかに区別できる。

チチブイチョウウロコゴケ(服部) *Acrobolbus titibuensis* Hatt. は subgenus *Lophocoleopsis* に属するものであるが、本属の分布の特異性についてはすでに服部博士により再三言及されたところである。本属のもので生殖器の明らかなものは、ヨーロッパの *A. wilsonii* があるが、この種の雄生殖器も明らかでない。Schiffner が subgenus *Lophocoleopsis* を設定した時に与えた生殖器の記載は恐らくニュージーランドから知られている *A. lophocoleopsis* にもとづくものであろうけれども、これが果して本属のものであるかどうか疑問がもたれる。本属に入るものは今日のところではヒマラヤの *A. ciliatus*、北米の *A. rhizophyllus*、日本の *A. titibuensis* 及び先にあげた *A. lophocoleopsis* であるが、今回記載した *A. titibuensis* の雄の生殖器と *A. lophocoleopsis* の雄の生殖器の記載では *Antheridium* の数が異っている。このことは上記した如く *A. lophocoleopsis* が本属に入るか否か疑問がもたれるので今後 *A. lophocoleopsis* の詳細な検討をまつた上で更に考察をすすめたいと考える。

ムカシヒシャクゴケ *Scapania ornithopodioides* (With.) Pears. は尾川・服部両氏(1955)が subgenus *Protoscapania* を新らしく設定した際に日本産の唯一の種としてあげられたが、本種の生殖器が未知のため支那雲南から知られている *S. secunda* が亜属の type に指定された。昨夏十文字峰でイトウトサカゴケと共に採集した本種の中に花被をつけたもの若干をみるとことが出来たが *S. secunda* の花被と比較すると口縁部の様子が非常に異っている。即ち本種ではいちじるしく ciliate している上に時に口縁部が裂片に分れる傾向があるが、*S. secunda* では口縁部は不規則に dentate していて裂片に分れるようなことはない。

□ 幾瀬マサ著： 日本植物の花粉 (Pollen grains of Japan) pp. xi, 303. Pl. 1-76, ￥ 2,500 広川書店, 文京区春木町 (Hirokawa Publishing Co. Harukicho, Bunkyo-ku, Tokyo)

著者の東邦大学における 10 年の努力が実を結んで、殆んど全部生きた植物によつて、約 190 科、2,300 種に及ぶ本邦産及び本邦内栽培植物の花粉が型(65 種に分けた)、彫紋(10 種)、大きさの各点で調査された。この中には著者によつて初めて発見された型もある。この部に主力が注がれているが、型による或は大きさによる検索表の作成にも絶大な努力が加えられている。又科別に特長をまとめた部分は系統分類学上の興味が大きい。これと第 1 表科別花粉粒一覧をまとめることが出来たらもつと便利であつたかも知れない。開花暦、採集法、プレバラート製作法、術語の説明、屈折率の表など行きとどいている。材料の植物の鑑定は一流の分類学者によつてるので正確であり、安心して使える。巻末プレート凸版 40 葉、写真版 36 葉は世界の水準を出している。世界的に花粉学興隆の時に本邦の材料でこの様にまとまつたものが出来たことは慶賀にたえない。

(Elaborate work on about 2,300 species. Text in Japanese. Tables covering 243 pages are intended to be useful for foreign scientists.) (津山尚)